



FEMA

A Dream Comes True: Mitigated Haven in Mississippi

Ocean Springs, MS – When a new beachfront housing development opened in 1995 at Belle Fountaine in Ocean Springs, Charlotte Lamar walked the five waterfront lots until she decided on one for her dream house. Ms. Lamar's home suffered little damage during Hurricane Katrina in August 2005, thanks to mitigation measures she employed during its construction.

"I always dreamed of having a beach house. I grew up around water," Ms. Lamar said. A native of Holland, she moved to New Orleans at the age of 12. "My father was a sailor. We always went sailing. I know my background with water. That has a lot to do with why and how I built this house," she explained. Ms. Lamar also wanted an octagonal-shaped house, which she believed offered improved wind-resistance.

Ms. Lamar learned that her new home would have to be elevated to protect it from flooding. She gathered information from Jackson County on residential elevations and damages incurred during previous hurricanes in her community. She also gave credit to her son, an engineer, for additional suggestions that prompted her to include an additional five feet of elevation (freeboard) into the construction of her home.

Eight pressure-treated wood pilings were positioned at the corners of the octagonal structure, embedded 15 feet in the ground, and connected to the roof. The design of the roof aids in its wind resistance; its pitch equalizes downward pressure from high winds. The entire house is tied together with metal brackets and hurricane straps that help distribute wind loads by providing a continuous load path from the roof to the foundation. The home, built of cedar, stands approximately 22 feet above sea level and is located in Zone C where there is no regulation to elevate above the Base Flood Elevation. Therefore, Ms. Lamar elevated her house by choice, basing her decision on historical events, such as Hurricane Camille. Following fourteen months of construction, she gazed toward the Gulf from the second floor deck of her new home.

Ten years later, Hurricane Katrina threatened Ms. Lamar's house with a tidal surge estimated at 19 feet above sea level at Belle Fountaine. Thanks to hurricane mitigation planning, her home is one of the few houses in her community that did not surrender to the catastrophic storm.

The tidal surge rose two feet on Ms. Lamar's property, but missed her house by three feet because of the additional elevation incorporated into her home's construction. The force of the tidal surge destroyed the air conditioning and heating ductwork beneath the house; saltwater invaded the floor vents and left mud on the floors of the house; and the 102 mile-per-hour winds and rain damaged a window, allowing water into the house. However, compared to other beachfront homes, Ms. Lamar's house sustained minimal damage.

Ms. Lamar's house had successfully weathered several previous storms. "I was overwhelmed by Katrina," she said. "I didn't [expect it to be] as bad as it was...[but] this house did exactly what it was supposed to do."



Jackson County,
Mississippi



Quick Facts

Sector:

Private

Cost:

Amount Not Available

Primary Activity/Project:

Building Codes

Primary Funding:

Property Owner, Residential